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Which Consumer Capabilities are Actually Triggered by Children In-Store?

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Abstract: This research aims at identifying the consumer decision-making capabilities that are activated by children when making a purchase decision in-store. Previous research on these capabilities used methodologies such as tests, questionnaires or interviews, never accounting for the complexities of a natural environment like the supermarket. A sample of 16 dyads parent-child was observed while making a purchase decision in the cereal aisle of two supermarkets, followed by an interview. Our results suggest that the capabilities that are triggered at the supermarket pertain to categorize and evaluate products, whereas others like brand recognition and price knowledge are not fully activated during decision-making. These findings have implications to managers and marketers, but also to parents and schools.

Keywords: Children, Consumer Knowledge, Consumer Skills, Cognitive Development, In-Store Observation

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1 Introduction

Around the age of four or five, many children begin to make purchases on their own (McNeal, 1992), and from 8 to 14 years old, children spend or influence \$1.18 trillion worth of sales per year worldwide (Lindstrom, 2004). Given the undisputable presence of children in the marketplace, the need to enhance the child's ability to act as an educated consumer has become a topic of concern (Peracchio, 1992). For that to occur, it is essential to understand better how children learn, and thus, many research investigations explored children's knowledge-acquisition skills. However, most of these studies used techniques that may lead to a bias in the results. In fact, interview data is subject to distortion and memory error, and laboratory behavior is artificial compared to the real-life supermarket situation (Atkin, 1978). None of these studies used observation in-store, mostly due to convenience reasons, and therefore there is no evidence of the

extent to which these capabilities are actually activated when the child is facing a real shopping situation. We tried to bridge this gap by having a more accurate assessment of children's shopping knowledge and skills through observation in-store. The observed skills comprise *Transaction Knowledge* with concepts like understanding money and its role in the exchange process, as well as *Decision-Making Skills* such as learning how to compare prices and quantities (John 1999).

2 Literature Review

2.1 Consumer Socialization and Child Development

Ward (1974:2) defines consumer socialization as “processes by which young people acquire skills, knowledge, and attitudes relevant to their functioning as consumers in the marketplace”. From the day they are born until adolescence, children develop both cognitive and social abilities, contextualizing their role as consumers. Piaget's theory of cognitive development proposes four stages affecting the evolution of consumer knowledge and decision-making skills: sensorimotor (0 to 2 years), preoperational (2 to 7 years), concrete operational (7 to 11 years) and formal operational (since 11 years), being the last three the most important to consumer researchers (Piaget and Inhelder, 1969). Preoperational children are already attentive to perceptual attributes of stimuli, but they can only focus on a single dimension, whereas concrete operational children can consider several dimensions of a stimulus at a time relating them in a thoughtful way. Formal operational children are capable of even more complex thought patterns either about concrete or hypothetical objects and situations.

John (1999) proposes a developmental process by integrating these stage theories of cognitive development with other theories of social development, illustrating the changes that take place as children become socialized into their roles as consumers.

According to the author, consumer socialization has three stages: perceptual (3 to 7 years), analytical (7 to 11 years) and reflective (11 to 16 years). During the first stage, children's consumer knowledge is characterized by perceptual features of the marketplace, which are often based on only one dimension (eg. size), and represented in terms of concrete details from their own observations. Children at this stage are unable to take into consideration the other person's perspective when making choices or attempting to influence others. The analytical stage (7-11) includes the most important developments in terms of consumer knowledge and skills. Cognitively, their focus of the brain development changed from the right to the left side, which is more specialized in reasoning, logic, math and analytical activities (Acuff, 1997). This change allows for an increase in information processing skills and a more sophisticated understanding of the marketplace, including the knowledge of concepts such as advertising and brands, which in turn are compared on the basis of more than one dimension. Generalizations are drawn from one's experiences, since reasoning advances at a more abstract level. Socially, they are not only able to understand that others have different motives and opinions, but they can also consider another person's point of view. The last stage, or reflective stage (11-16), is characterized by a more reflective way of thinking, since children grow to be more focused on the social meanings of the marketplace. They form impressions based on social comparisons of factors such as social standing, and possessions. Consumer decisions are more adaptive and depend on the situation and task. Knowledge about marketplace concepts becomes more complex and sophisticated.

2.2 Transaction Knowledge

Children start understanding market transactions by combining their experiences with increasing cognitive abilities allowing them to interpret and organize their

experiences (John, 1999). It comprises product, brand and shopping knowledge.

Product and Brand Knowledge

Products and brands are probably the most salient aspects of the marketplace to children (John, 1999). With 6 years old children are able to name multiple brands in most child-oriented product categories such as cereals and snacks (McNeal, 1992), which are the first product categories to have brand awareness developments (Ward et al., 1977). Rossiter (1976) proved the existence of a rich data base in children's visual memory, and confirmed that the children's awareness and recall of brand names increases with age. However, their ability to recognize brands starts earlier (2 to 3 years old) than their ability to recall the same brands (around 7 years of age): with 2 or 3 years old, children are able to recognize almost 8 brands out of 12 logos, but can only recall 1 brand, while children with 6 to 7 years old are able to recognize more than 11 brands out of 12 logos and recall between 3 and 4 brands (Valkenburg and Buijzen, 2005).

Although 3 year old children can recognize familiar brand names and brand characters, children this young may be using those names in a generic way to refer to a product category (John, 1997). Only at 4 years of age children learn how products are grouped together and distinguished from one another, using only perceptual cues (e.g. size, shape). By third or fourth grade they use, not only perceptual features, but also underlying cues or functional attributes. In fact, the use of perceptual attributes as a basis for categorizing products decreases with age, whereas the use of underlying attributes to categorize products increases with age (John and Sujan, 1990).

Regarding brand meaning, it is not until 8 years old that children are able to see brands in a conceptual way, i.e. specifying the non-observable features of the product, since they acquired the ability to think more abstractly. Only when they are 12 children

are able to incorporate symbolic meanings into some types of brand-related judgments, due to capabilities acquired in the reflective stage (Achenreiner and John, 2003).

Shopping Knowledge and Skills

Shopping skills are referred as a “wide array of abilities used for comparing product value prior to purchase” (John, 1999:196). Learning to count money and to do simple addition and subtraction, are tasks usually accomplished in first grade, as well as solving one step problems involving situations with taking, comparing and adding. Decimal numbers, multiplications and simple divisions start by second grade¹. Hence, it is logical to conclude that it is not until third grade that they are able to compute and understand unit prices in order to compare products across brands or sizes. Only children in the upper grades of elementary school have the requisite cognitive skills and should be able to handle more complex shopping trips (Reece, 1986).

Turner and Brandt (1978) found that older children (10 and 11 years old) are more accurate in comparing products than younger children (4 years old) when required to look for unit prices and net weights of packages. Moreover, accuracy in product comparison is directly related with home responsibilities and money experience.

Concerning price knowledge, most 5 year old children start with the concept of price only by knowing a fixed amount must be paid; then, perceptual features are used as basis for pricing. Only by 10 years old quality emerges as a source of value and with 13 buyer preferences are also accounted for (Fox and Kehret-Ward, 1990). Moreover, children with more experience in the use of money and the ones given money to spend, have more knowledge of money and its use (Marshall and Magruder, 1960).

¹ Bivar, A., Grosso, C., Oliveira, F., and Timóteo, M. C. (2013). *Programa e Metas Curriculares Matemática - Ensino Básico* (pp. 1–83).

2.3 Decision-Making Skills

Children play important roles in family consumer decision-making, and they are gaining responsibility as consumers in their own right (Solomon, 2006). As children grow older, they develop several sophisticated decision-making skills and abilities. By learning how to seek out relevant information about functional aspects of products, children are able to utilize more attribute information in evaluating products, and adapt their decision strategies to the environment they encounter (John, 1999).

Product Evaluation

As they grow older, children become more informed consumers, and they use that information to evaluate and compare products (John, 1999). They become more successful in comparing brands on dimensions such as price and quality (Turner and Brandt 1978). In general, older children (8 and 9 years old) use more dimensions than younger children (4 and 5 years old) to base brand discriminations and preferences (Bahn, 1986). As they get older, children weight dimensions differently, and sometimes, have entirely different dimensions to form preferences (Bahn, 1986).

The relevancy of attribute information used is also an ability that children acquire through childhood (John, 1999). Children aged 10 to 16 remember more initial, relevant information from decision situations than younger ones (7-8), and younger children are more likely to attend to irrelevant information than older children (Davidson, 1991b).

Decision-Making Strategies

Decision strategies involve attention to multiple attributes, together with a focus on the most relevant ones. Hence, children have to be able to selectively attend to and process more information prior to choice in order to develop decision-making strategies (John, 1999). When searching for pre-decisional information (i.e cues), second grade

children are exhaustive but less methodical in their search for information, while fifth and eighth graders' decision-making involve the use of less challenging, non-compensatory strategies² (Davidson, 1991a). Exhaustive decision-making strategies are very costly in terms of time and effort, especially in complex decision environments, whereas simplifying or non-compensatory strategies provide a more effective balance of effort and accuracy, since they allow the decision maker to eliminate quickly certain alternatives that are unacceptable. Since younger children pay less attention to these costs, they have less incentive to change their strategies to less exhaustive ones (Howse et al., 2003; John, 1999; Gregan-Paxton and John, 1997). In coherence with this thought, it was proved that too little or too much time spent in making a decision reduces the chances of the child making an accurate choice (Turner and Brandt 1978).

2.4 From the Laboratory to the Actual Store

Decision-makers hold a repertoire of strategies and usually select them based upon tradeoffs between the accuracy accomplished by a given strategy in a particular choice environment and the cognitive effort required to implement that strategy in that choice environment (Bettman, 1993). A complex choice environment would be the supermarket, where consumers are surrounded by numerous packages and price tags. Thus, the amount of information available to the consumer is large, and processing it all is nearly impossible and unlikely to be worth the effort (Russo et al., 1975). Additionally, at the supermarket, most purchase decisions are routinized and consumers make decisions with little or no conscious effort. Solomon (2006:262) calls it “habitual decision-making”. After buying the same product repeatedly, tasks are performed quicker and make smaller demands on cognitive resources. The cognitive effort required

² A compensatory strategy requires explicit trade-offs among attributes, so a positive aspect on one attribute can compensate for a negative aspect on another. Thus, a non-compensatory strategy implies making a decision in which a strength of one attribute does not compensate for a weakness on another (Howse et al., 2003; Bettman et al., 1998).

for certain tasks eventually may be so reduced that the task is performed automatically, i.e. “with minimal effort and without conscious control” (Alba and Hutchinson, 1987:413). Thus, shoppers tend to spend only a short time making a selection and many do not check the price of their selected item (Dickson and Sawyer, 1990).

The vast majority of consumer behavior literature and studies on decision-making related to consumption are based on self-reported behavior. Nonetheless, Gram (2010) states that these methods have some limitations regarding the study of shopping decisions, and particularly, by parents and children, because consumers have limitations in their willingness and ability to put in words what really happened in-store.

For example, there are numerous researches about the display of unit prices and its effectiveness. A fundamental problem with all these studies is the unreliability of self-reported behavior, in which differences in observed rates of the reported use of unit pricing may be largely determined by differences in interviewing techniques (Monroe and LaPlaca, 1972; Russo et. al, 1975). Laboratory tests are likewise a simplification of reality and the tasks performed by the subjects are a simplified version of what happens in an actual store (Atkin, 1978). At the store, adult shoppers are not always aware of and do not always use unit prices in making purchase decisions (Russo et. al 1975).

As a result, observation is a logical approach to eliminate some of those limitations. Observation has a strength which is that it is the observer who has the task to report what happened, leaving aside the social desirability effect, making it feasible to deal with the complexities of the supermarket (Gram, 2010).

2.5 Research Question

To conclude, each child goes through a series of stages of cognitive and social development, which affect the acquisition of skills and knowledge, contextualizing their

role as consumers (Ward, 1974; John, 1999). Empirical findings suggest that transaction knowledge and decision-making skills are capabilities acquired and developed during that period and are essential to consumer socialization (John, 1999). These capabilities, however, were tested through self-reported behavior or in laboratories, which are methods with several limitations, especially regarding children and parents (Atkin, 1978; Gram, 2010). Moreover, the supermarket is a much more complex environment, where adults perform tasks more rapidly and with less cognitive effort than in a simulated market (Russo et al., 1975; Solomon, 2006). Bearing all this in mind, the question that this research aims to answer is: which of these capabilities are actually triggered by children in a complex environment like a supermarket?

3 Methodology

3.1 Product Category

The scenery chosen for this research was the breakfast cereals aisle, one of the most relevant foods regarding children, since they feel extremely comfortable expressing their desire for a particular brand of cereals and parents feel equally comfortable yielding to that request (Gaumer and Amone, 2010; Ward and Wackman, 1972).

3.2 Methods

The research design combines observational and questionnaire data. Using diverse methods to collect data builds rigor, giving a more comprehensive sense of a situation. Each method has its limitations and strengths. By using more than one, we extract the strengths and reduce the limitations (Naughton and Hughes, 2008; Ebster et al., 2009).

Observation is a method that allows the researcher to see and hear directly what is happening, rather than having to rely on someone else's version of it (Naughton and Hughes, 2008). The observation technique used in this research was the non-participant

observation (or direct observation), in which the observer only watches as an outsider, so subjects do not know they are being observed. This method is helpful when researching children in their natural behavior since children are spontaneous, impulsive, driven by the physical stimulation of their immediate environments (Rust, 1993) and usually reactive to strange people and strange situations (Greig et al., 2007). In this research the observer used a common observation tool called checklist, which consists of a list of behaviors and events, and each item is ‘checked’ whenever the subject shows a behavior of that list (MacNaughton and Hughes, 2008).

Exploratory visits were made to several supermarkets, in order to understand if it was possible to withdraw relevant information from children and their parents’ dialogues when making a decision in-store. Those visits were enough to motivate the continuance of the research using observation method at the supermarket.

The observation was conducted in two different Continente³ stores (a large hypermarket housed in a shopping center and a small supermarket on a main street in the center of Lisbon) and took 8 days in which the researcher observed from 4pm to 8pm during weekdays and from 10am to 8pm during weekends. Observations were one at a time and started when a shopper with a child within the age range arrived at the cereal aisle with the obvious intention of selecting a product there. The observer had to play a passive and nonintrusive role during the observation (Webb et al., 1966; Gram, 2010), but also listen the dialogues and watch the behavior closely, thus the best way to do that was by standing in the cereals aisle presenting the appearance of a store clerk and carrying a clipboard with the checklist.

After the observation, the subjects were approached and asked whether they were willing to participate in a short questionnaire: one for the child and other for the adult

³ Continente is one of the largest supermarket chains in Portugal

accompanying the child. The purpose of this questionnaire was to complement the data observed, understand subjects' reasons in doing what they were doing, and give some context to the situation. Afterwards, the observation data was shown to the adult and child, and permission was obtained to use it. Observational data for subjects who declined to take part in the questionnaire were discarded. Five subjects declined.

3.3 Sample

The participants sought to this research included children from 7 to 11 years old and their accompanying adults entering the breakfast cereals aisle. As explained previously, this age range is where children go through most of the cognitive development and abstract reasoning starts developing (John, 1999).

The total number of families that were observed and who agreed on participating in the research (it implied agreeing on disclosing the observed information, and also answering a questionnaire after the observation) totaled 16 families. However, one family is linked to two questionnaires since it was composed of one mother with two daughters, and another family agreed to participate but did not answer the questionnaire. Therefore the sample includes 17 children observed and 16 children questioned from 6 to 12 years old⁴ from which 5 are boys and 12 are girls. All children consume cereals at least several days a week. After the observations, 15 parents were questioned, since all children were with at least one parent. Parent's education level goes from elementary school to postgraduate.

⁴ The age range is larger than predicted due to the fact that, when the observer starts to record the behavior of a child, the age is an estimation.

3.4 Measures

Based on literature review, children between 7 and 11 years old are expected to do certain tasks in-store, due to their cognitive and social capabilities at that age. This research has the main goal to identify those capabilities that are triggered at the supermarket. Table 1 is a summary of those capabilities and measures used:

Table 1 – Measures

| Transaction knowledge | | |
|--------------------------------------|--|--|
| TOPIC | CAPABILITIES* | WHAT TO EXPECT IN-STORE |
| Product and brand knowledge | → Increasing brand awareness; → Functional attributes to define product categories; | 1. Children recognize and mention brands of that product category; 2. Children mention the correct name of the product category and attributes (perceptual/underlying) common to all products of that category; |
| Shopping knowledge and skills | → Accuracy in product comparison; → Prices based on theories of value. | 3. Children look for price information; 4. Children justify the price for a more expensive product. |
| Decision-making skills | | |
| TOPIC | CAPABILITIES* | WHAT TO EXPECT IN-STORE |
| Product evaluation | → Focus on important attribute info – functional and perceptual; | 1. Children mention both product price and quantity; 2. Children mention functional attributes; |
| Decision-making strategies | → Use two or more attributes/dimensions. | 3. Children take not too little nor too much time making a decision. |

*relate with money experience and co-shopping frequency

Transaction Knowledge

Product and Brand Knowledge

We measured brand awareness in terms of recognition since it is the most important in the retail environment (Valkenburg and Buijzen, 2005). It was assessed on both the observation and the questionnaire. First it was recorded on the checklist whether the child or the adult mentioned any brand during the decision-making. In the interview, it was asked the child directly how many brands s/he recognized from the aisle in front of him/her and which brands s/he usually consumes (an adaptation of the procedure of Valkenburg and Buijzen, 2005). The capability to differentiate product categories was measured by observation. It was recorded any reference used to categorize cereals, from the broader “food” category to the narrowest sub-category (eg. chocolate cereals). Additionally, using an adaptation of the John and Sujan test in 1990, it was indicated if

children used a perceptual feature (P) or an underlying feature (U) to categorize cereals. The observer used as a reference that same test in order to be prepared to quickly understand if the cue was perceptual or underlying.⁵

Shopping Knowledge and Skills

Observation was the main method used to understand if children use their knowledge about prices when making a purchase decision. It was recorded on the checklist whether the child/adult looked at price labels before choosing the product, a method used by Grunert et al. (2010) to test if shoppers look at product labels. Additionally, it was documented any explanation that the child/adult gave in order to justify a price for a given item. Finally, also in the questionnaire, children were asked if they usually pay any attention to price labels when making a decision at the supermarket (questions used by Grunert et al. (2010) in an interview after observation).

Decision-Making Skills

Product Evaluation and Decision-Making Strategies

To measure the ability of children to use more than one dimension and different attributes in a purchase decision-making, both observation and questionnaires were used. First it was observed and recorded on the checklist whether the child looked at the front of the package, turned it to look on the side or did not look for information before choosing the product (a method used by Grunert et al. (2010)). Afterwards, it was recorded any reference made by the child/adult about functional attributes (eg. flavor or nutritional information) in contrast with perceptual attributes, prices and quantities. Later, with the questionnaires, children reported the reasons that led them to choose that

⁵ Cereals vary on the basis of perceptual attributes such as product shape (e.g. squares, flakes, circles), product color (e.g. tan, brown, multi-color), and package size (e.g. regular size or small variety pack) or on the basis of underlying attributes such as flavor (e.g. fruit-flavored, chocolate-flavored, corn-flavored), sweetness (e.g. heavily presweetened or less sweetened), and nutritional value (e.g. amount of vitamins or bran) (John and Sujana, 1990).

brand and were asked to compare that brand with the others, as a way to identify other product attributes used that were not observable (Buijzen and Valkenburg, 2008 and Grunert et al., 2010 also used a questionnaire after observation to complement research with information that is not observable). Finally, children were asked if they usually pay any attention to price labels or information on the package.

The time spent in purchase decision-making was also recorded during observation because too much time involves costly and exhaustive decision-making whereas too little time may not involve decision at all (Grunert et al. (2010) measured the time children spent during decision-making). Additionally, both children and adults were asked if there was intention to buy those cereals before going to the supermarket. These two measures confirm if a product evaluation was made in-store.

Other variables

Another variable considered to this research was who initiated the communication. Adults invited children to take part in the decision-making process, by asking them which product they preferred, inviting them to make a product selection, or suggesting the purchase of a certain product. The observation checklist was used to record behaviors performed by children/adults when they were initiating the decision process (a method used by Buijzen and Valkenburg (2008) and Ebster et al. (2009)).

Additionally, other variables relevant to the research were acquired on the questionnaires, such as children's age, co-shopping frequency (5 point Likert scale) and cereal consumption frequency (6 point Likert scale)⁶, adults' education level and relationship to the child. Money experience was initially in the questionnaire due to its great importance on children capabilities, but those responsible for supermarket's

⁶ The usual 5 point Likert scale was initially considered to measure cereal consumption frequency. However, the market research department of the company that owns the supermarkets requested the use of a 6 point Likert scale instead.

market studies requested its removal on account of the sensibility of that issue to clients.

3.5 Ethical Issues

Ethical recommendations provided by UNICEF (2002) were followed, ensuring the protection of children's best interests. The main research method employed was observation in a natural setting, which has many advantages when studying children, and it is already a well-established technique in marketing research. Both adults and children were informed about the nature of the research, the methods and the confidentiality. All subjects used to this research collaborated and gave their authorization to the data processing.

3.6 Data Analysis

Each family's checklists and questionnaires were numbered. After a careful revision of the raw data, the researcher input each observation in a spreadsheet previously organized to this end (categories were arranged by capabilities). The researcher did this right after observations took place, in order to bring the insights as closer to the reality as possible. Details were cautiously noted, important quotes were written down and relations between variables were explored.

4 Results

Most of the dialogues were initiated by the parent (10 dialogues out of 16 observations) usually with a question 'Do you want cereals?', but sometimes with an invitation 'Do you like this brand? Do you want to take it?' In the cases where the child initiated it, s/he started the dialogue either by making a request (4), or just grabbing a package (2). All observations resulted in a purchase, except for one in which the mother of a 9 year old boy said 'this is all Continente branded [private labels]. This is awful'. Although most purchases were decided by children, they were in some way influenced

by their parents a few times. For example, a 9 year old boy asked for chocolate cereals and his mother said: ‘I don’t want you to eat chocolate everyday! Choose another’.

4.1 Transaction Knowledge

Product and Brand Knowledge

During the observation period, most children frequently mentioned brand names while deciding or trying to convince their parents, which is in accordance to what the literature indicated: that the brand is the most salient aspect of the product (John, 1999). They mentioned the same number of brands or more than their parents in 13 out of 16 observations. However, on the interview phase, brand recognition was lower than expected. Each child mentioned correctly the name of at least one brand and a maximum of 6 brands. Although children did not have a list of cereals to choose from, they had more than 50 different child-oriented cereals (40 in the smaller store) displayed in front of them at the moment they were answering. Thus, recognizing 6 brands out of 40 or 50 is not even close to the values found by Valkenburg and Buijzen (2005). A possible reason is that recognizing brands out of a list of 12 logos is very different from the in-store experience. In this complex environment there is noise, children have dozens of alternatives and they are surrounded by other people, which all together may influence their capability to recognize brands. As Russo et al. (1975) said, processing everything is nearly impossible and unlikely to be worth the effort, even for adults.

Despite the most mentioned brands being from Nestlé (Chocapic⁷ and Estrelitas⁸), children had a certain knowledge regarding private label (Continente) products. Results show that some children could differentiate a private label product from a manufacturer branded product, and spontaneously gave their perceptions about private labels.

⁷ Chocolate cereals from Nestlé, in some countries the brand is called Koko Krunch.

⁸ Honey cereals from Nestlé, in some countries the brand is called Honey Stars.

Children associate these kinds of products with negative connotations (as inferior products) or call them ‘cheaper’. Regarding children’s perceptions to private labels there are not many studies to compare. However, these findings are in line with the research made by Achenreiner and John (2003), which suggests that children with 8 years old are already able to specify non-observable features of a product, due to their ability to think more abstractly:

‘I usually eat Chocapic from Continente. The other one [from Nestlé] is much more expensive!’ (9 year old boy)

‘Our mother sometimes deceives us: she buys cereals from Continente and throws away the package. Then she puts them in a jar so they seem Chocapic.’ (10 year old girl)

In what concerns the capability to categorize products, most families mentioned the category ‘Cereals’ and one mother of an 11 year old girl mentioned ‘Breakfast cereals’. Observations showed that, to subcategorize cereals, children used perceptual cues and underlying cues, which was expected from the literature review. The perceptual attributes used to group products were: product shape, product color and package size. Product shape was the most used attribute both by parents and children, being some examples: ‘Pyramids’, ‘Little Balls’, ‘Little Stars’, ‘Honey Rings’ and ‘Hazelnut filling’. The reference to the product shape is more delicate in a sense that sometimes the name of a brand was used as cereal design. For example, Chocapic (Nestlé) has a very specific cereal shape, and Continente has a product with the same shape and color, which both children and parents also call chocapic – ‘Do you want Chocapic or Bolinhas?’ - says the father of a 9 year old boy, pointing only to Continente brands. The only reference to the product color was given by a 7 year old girl talking about

Chocapic Duo ‘I like the white Chocapic’. Lastly, a 10 year old girl says ‘We should take the big package!’ mentioning the size to differentiate that package from others.

Younger children were not able to use underlying cues to group products. The underlying cues that were used were strictly mentioned by children with 9 years or older (6 out of 17). John and Sujan (1990:459) suggest an explanation for that: younger children are called “perceptually bound”, which in turn makes it difficult for them to suppress highly salient visual cues to focus on underlying attributes. In the present research, children used mainly flavor (or ingredients) to categorize cereals:

‘I love chocolate flavored cereals! And I don’t choose the ones that don’t have chocolate’ (11 year old girl)

‘I don’t like cereals when they have too much honey, like those Honey Rings’ (8 year old girl)

The level of sweetness was the other underlying attribute used to group cereals. Like this 9 year old girl saying ‘I like cereals that are not too sweet’.

Shopping Knowledge and Skills

At this age, children supposedly would use perceptual features as bases for pricing, and the older children should even understand quality as a source of value. However, only a few subjects gave justifications on why it would be worth buying a certain brand of cereals, including the parents. There was a father of a 7 year old girl who said ‘Estrelitas with Bolacha Maria⁹? How funny is that?! It’s produced in Portugal and it’s on sale. We should try it’. A boy with 9 years old expressed that the reason for buying a private label was, in fact, the price: ‘I usually eat Chocapic from Continente. The other one [from Nestlé] is much more expensive. And they are the same’.

⁹ Bolacha Maria (or Marie Biscuit) is a very popular cookie in Portugal, and frequently served to children as their first solid food.

During observation, besides those two subjects, only two other families discussed prices with their children, and those were the only children (three girls older than 10) that were observed looking at price labels. In one of those families, a 12 year old girl grabs a cereal box and asks her mother ‘Can we buy this one?’ the mother returns with a question ‘How much is it? Go look for the price’ the girl approaches the shelf and points with her finger ‘It’s 2.39€’, then her mother accepted the request with a nod. The other family (a mother, and her two daughters of 10 and 12 years old) discussed and compared different package sizes of cereals using unit prices, in order to buy the cheapest package size per Kg. The mother gave them an explanation ‘In these situations you need to see the unit price. It’s here on this label, can you see?’. Two other mothers looked at price labels before buying cereals for their children. The one with the elementary school and the 7 year old daughter took some time to look attentively to a cereal promotion sign, and then to the price labels next to it to choose the cereal package that was on sale.

When asked if they usually looked at price labels, there were more answers than what was observed. 10 out of the 16 children interviewed said they usually look at price labels when they go to the supermarket, or at least do it sometimes. The co-shopping frequency seems to be unrelated to the frequency with which the children read price labels (4 out of those 10 children co-shop at least ‘frequently’ with their parents but the other 6 children co-shop ‘sometimes’). Older children (from 9 years old) seem to understand better the purpose of price labels than younger children:

‘I look for it to compare cereals and take the cheapest’ (10 year old girl)

‘It helps me to choose a brand’ (12 year old girl)

‘When I request a cereal box, my mother asks me how much it is, so I go

see the price tag and then I tell her' (9 year old boy)

'Sometimes I notice it but I usually don't understand it' (7 year old girl)

4.2 Decision-Making Skills

Product Evaluation

The attributes and dimensions used by the children were somehow miscellaneous and there was a large discrepancy among the number of used dimensions (from 0 to 5 attributes in observation and from 0 to 6 when adding the questionnaires). Children from 10 to 12 years old accounted not only for more attributes than the others, but were also the only ones to consider 4 or 5 attributes, which is consistent with the results of Bahn (1986). On average, each child mentioned 1.76 attributes during observation, and 2.69 when including the attributes mentioned in questionnaires. There were references to perceptual attributes and functional attributes. Besides prices, the attributes mentioned by children were: product color, product shape, package size, package color (perceptual attributes), flavor, sweetness, nutritional information, their relative's preferences, brand claims, and product usage (functional attributes). The proportion between perceptual and functional attributes used was not the same to all children. Those younger than 10 years old used more perceptual attributes¹⁰, mainly product shape, and children from 10 to 12 years old used more functional attributes¹¹.

During the purchase decision there were four families mentioning the price. Two of them, as said earlier, had price discussions and the other two were only short references. What these observations have in common is the fact that, in all four cases, parents had

¹⁰ Examples of perceptual attributes considered by children are: 'I like the new moon shapes' (8 year old girl); 'I like the white Chocapic cereal' (7 year old girl talking about Chocapic Duo); 'The little cookies with the chocolate chips' (7 years old girl).

¹¹ Examples of functional attributes considered by children are: 'I like Kellogg's but these ones [Frosties] have sugar; it's better. Milk becomes great with the sugar' (9 year old boy); 'I don't like Rice cereals... They get soggy in the milk!' (12 year old girl); 'I like when the cereals are not too sweet' (9 year old girl); 'Other brands are more expensive' (9 year old boy); 'Each time I go shopping [cereals] with my sister we have to agree on which one we should take' (10 year old girl); 'I don't like fruity-flavored cereals' (10 year old girl).

the initiative to talk about prices and never the child. Moreover, there seems to be a relationship between the parent's level of education and children's purchase decision: the lower the parent's level of education, the more prone is his/her child to mention the price, either during observation or on the questionnaires.

Concerning package information, parents showed slightly more interest on reading it than their offspring (5 out of 17 children and 7 out of 16 parents were observed looking at it). Only one child turned the package to look on the side - only because the mother asked her for nutritional information. And a mother of a 7 year old girl turned the package on the side to look for milk in the ingredients section, since her child was allergic to it.

When asked if they usually read information from the package, 6 out of the 16 children surveyed, answered 'YES', which is consistent with the observed ratio of one third of the children. However, in their answers they showed that it was hard for them to understand exactly what they were reading, even when paying attention. Take, for example, these two girls that started by answering that they usually did not read information from the packages, but later they confessed:

'I read it. But I don't know what it means' (12 year old girl)

'I usually look at that information but I don't read it. I mean, only these values' and she pointed at the left upper corner of a Estrelitas package,

'like sugar, calories, fat...' (8 year old girl)

Moreover, there was a mother of a 6 year old girl who said 'yes, she can read. But she is still too young to pay attention to those things'.

Decision-Making Strategies

The time each family took in the cereals aisle varied from 10 seconds to 5 minutes.

The average was around 82 seconds and 7 out of the 16 families observed took under a minute to decide. In general, boys took less time to decide than girls¹². On average, boys took less than a minute, and the girls group included the 5 minute decision.

It would be expected that families who had previously planned to buy cereals would take less time to decide than those who did not plan. However, there was not a big difference between the two. The main reason seems to be the fact that parents do not share the planning with their children. Out of the 15 parents interviewed, 12 said they were planning to buy cereals before going to the supermarket. However, only 8 children knew they were buying cereals, and from those 8 children, only 3 knew which cereals they were going to buy. These 3 children took a very short time in the aisle. In fact, two of them took less than a minute, and the third child, a 12 year old girl, took 86 seconds due to the fact that, after choosing the cereals she wanted, she decided to buy something for her sister too (an unplanned buy), and took some time to decide that.

Children who took too little time in the aisle had their decisions routinized, so there was not much consideration at the site. The girl who took the shortest time to decide had 7 years old and, after the mother asked her if she wanted cereals, she did not seem hesitant nor unsure, she just took a few seconds to find them. The boy who took the second shortest time (27 seconds) was 9 years old, and was given a choice by his father 'Do you want the little balls or Chocapic?', both chocolate cereals and from what was disclosed later, their favorite. He took only a few seconds to decide between the two.

Families that took more than a minute in the cereals aisle performed a very different kind of purchase decision. They used more exhaustive and challenging strategies. Like a 7 year old boy that stood in the cereals aisle for 65 seconds after his father invited him to choose a brand of cereals to take home. He quickly decided he wanted Chocapic, but

¹² This result may be misleading due to the low proportion of boys (5) compared to girls (12).

as his father went to another aisle, he stayed looking attentively to all Chocapic packages before choosing one. Although there were 14 identical Chocapic packages forward-facing, he chose one from behind and left. The family, whose time in the cereals aisle was the longest, is the perfect example of exhaustive strategies. It consisted of a mother and her two 10 and 12 year old daughters. They took more time mainly because the two sisters could not agree on a box of cereals, and the mother was trying to help them in the decision by explaining what is a unit price, how they could look for it, and how it is helpful in a decision between cereals with different quantities and prices.

4.3 General Conclusions

During the field research, the observer noticed several situations in which parents seemed they were taking advantage of the supermarket trip to educate their children as consumers. This was done either by providing explanations about the use of price tags and nutritional information or by pointing out mistakes that the child had mentioned during the decision. Seven out of the 15 parents interviewed said they co-shop at least frequently with their children, which means these children have lots of opportunities to learn from their parents how to be conscious and responsible consumers¹³.

5 Discussion

Results show that children are eager to mention brands while they are deciding or trying to convince their parents. However, their capability to recognize brands at the supermarket is much lower than suggested by the tests of Valkenburg and Buijzen

¹³ Examples: (1) a 9 year old girl said 'I like when the cereals are not too sweet' and her father comments after her 'all cereals you eat are very sweet!' This shows that the parent is eager to teach his child that the cereals she uses to buy have actually too much sugar, giving the idea that is not healthy; (2) a mother and her two 10 and 12 year old daughters discussed in store, which package size would be better to buy. During that discussion the mother taught them that that was a situation in which they should look for unit price information and where they should look for it. Moreover, she told her two daughters they should agree on a purchase after their decision, which allowed them to search for cereal qualities and attributes that would convince the other to accept those cereals; (3) a mother of an 8 year old girl explained her daughter that Corn Flakes are actually not a brand name, but a type of cereals that the brand Kellogg's have. The child answered Corn Flakes to the question 'which brands do you recognize?' and the mother waited until the researcher was finished with the questionnaire to explain her; (4) finally, there were the parents of a 7 year old girl who was allergic to milk. They both were very careful in choosing the cereals for their daughter, always mentioning 'are you sure those cereals don't have milk?' and although there was not a word mentioning it, the child seemed to understand she could not choose any cereals she wanted because of her allergy.

(2005). This has implications for managers and retailers, since too many brands alternatives may limit children's ability to recognize those brands. While adult consumers may value variety, children might not. When placed in front of a shelf with 40 to 50 different products, most children kept mentioning only the leader brands.

Regarding the knowledge about private labels, children hold negative perceptions of private labels and can differentiate them from the others. This may have major implications for retailers. Since children this young have already molded their perceptions about private labels, it would be interesting to see what a campaign enhancing the value of private labels would do to the consumer population in general. It would be a chance for trying to reverse these perceptions both of parents and children.

Children's capability to categorize products is in accordance to what was expected. Thus, findings suggest that the complexity of the supermarket environment does not restrain their capability in that sense. The product shape, being especially important for younger children, is used to categorize products and it seems to stand out more than the other attributes. Retailers may consider these results to organize cereal shelves in a way that it seems more natural to children. The salience of the product shape could also be used to introduce healthier products for children, taking advantage of their preference for different shapes, and thus using a peripheral route to their persuasion, instead of focusing on the healthiness of the product.

The abilities related to comparing product value prior to purchase were generally observed in older children, as expected. Only the older children were able to understand information such as in a price tag and how one can use it. Nevertheless, this behavior in-store did not seem recurrent, even for older children. In what concerns price knowledge, children did not exhibit these skills as much as expected, which could be

due to the overwhelming number of price tags and product alternatives. If this is the case, then schools could take actions to help children develop this capability in theory, but more so, parents could incite children to use this capability during supermarket trips. That could facilitate the activation of price knowledge in-store and consequently, the accuracy in product comparison. However, in the interview, children claimed to notice more prices than what we had observed, which may indicate that they may have price knowledge, but it is not easily assessed through observation. Alternatively it can reinforce the idea that the information collected with methods other than the observation in-store can be biased towards an overestimation of the child's capabilities.

To evaluate a product at the decision-making site, there are two important capabilities: the number and relevancy of dimensions considered. Product shape was, again, the most mentioned feature by children during observations. Thus, findings suggest that the product shape, as an important and salient aspect of a brand, has a strong impact on the purchase decision of children. This aspect has implications for managers in what concerns the brand elements and symbols that are important to children. As they grow up, however, it is important that children are able to consider in-store more relevant product features than the shape, like the nutritional information, the flavor or even the price. Children should be encouraged to think of relevant attributes during decision-making. An interesting solution would be, following the example of a mother, who told their two daughters they had to agree on the cereals, which stimulated their search for important attributes so they could convince each other.

Moreover, in order to be able to use several dimensions, children should first be able to understand information that is written on the packages. Although children this age are perfectly able to read, they have a hard time to comprehend the information

displayed. Adding up to their difficulty is the lack of interest that most parents showed in reading information themselves. One way to change this trend would be to develop campaigns of awareness targeting both parents and children, and display information in a fun and simple way so that children are motivated to read and understand.

Regarding the decision-making strategies used by children in-store, there are different implications depending on the time children usually take. For children taking the shortest time, the decision is probably not made in-store. However, children taking the longest time are usually insensitive to search costs, and exploring is more important than the effort used in different decision-making strategies (Gregar-Paxton and John, 1997). These situations are usually more stressful for parents, and do not necessarily correspond to more accurate choices. Therefore, children should be taught to choose a more efficient strategy over an exhausting strategy, which in turn would put less pressure on parents, and consequently improve their shopping experience. Moreover, findings suggest that children are not involved in the purchasing planning immediately before the supermarket trip. If parents inform their children about their plans, they would certainly take less time in the supermarket and make it a more pleasant trip.

Finally, this research provided very interesting results concerning the parents' willingness to seize the opportunity of being in the supermarket to teach their children important consumer concepts. These are important findings that could lead to the production of a *Consumer Education Guide for Parents* in a partnership with a known food brand, in order to prepare children to become consumers. This guide would include children's capabilities, their activation in-store, and the steps that parents/schools could follow to help children activate those capabilities.

6 Limitations and Future Research

The major limitation is related to the observation method. Despite giving a good insight about the actual interaction between parents and children at the supermarket, it does not allow for the observer to contextualize the situation s/he is observing. Moreover, studying children's capabilities in a natural environment, although it helps on overcoming the social desirability effect, it is still hard to understand what is happening inside their minds and what are their thoughts at that moment. Additionally, this research was made with a very small sample, despite all the hours spent on the cereals aisle, and only with one product category, which may result in some misleading conclusions. Thus, it would be interesting to investigate children's capabilities with a larger sample and comparing different product categories.

Each capability separately has room for a deeper research on in-store activation. A subject lacking research is children's perceptions towards private labels. Especially with this economic situation, it would be interesting to understand how their perceptions change and what the influence of their parents' perceptions is.

Finally, an important contribution to all young consumers would be writing a *Consumer Education Guide for Parents*, taking advantage of the willingness showed by parents to teach their children.

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